Virginia Coastal Non-point Program Grant
Project Title:
Expanding Citizen Monitoring Network with Virginia's Northern Neck through Capacity Building

Final Report
August 2007

This intent of this project was to increase the capacity of volunteers to initiate and sustain water quality monitoring of creeks, streams and rivers in the Northern Neck of Virginia. Through the program 19 volunteers were trained and collected data which was entered into the Alliance for the Chesapeake's Bay Database and then forwarded to the Virginia Department of Environmental Quality's Water Quality data base. A new Train-the-Trainer Certification Program including both a manual and training curriculum were developed that will allow trainers to be trained who can then provide local classes to the volunteers on the techniques of water quality monitoring. This may play a critical role in sustaining volunteer water quality monitors when the Alliance for the Chesapeake Bay discontinues their organization support to volunteer monitors in late 2008. Additional work included sponsoring a Conservation Strategies Workshop on land preservation techniques for natural resource planning professionals.

Products:

1. Train-the-Trainer Certification Program Development and Test Pilot
***River Trends*, a** training program was designed to train key volunteer monitors in the knowledge, techniques and skills needed for the watershed coordinators or volunteers to begin running local training programs that would certify volunteers to collect and report water quality monitoring data into the state database and then to provide the annual recertification. Several drafts of the manual were produced and circulated to receive editorial comments. Then a pilot class was conducted to test the manual and curriculum. Edits were completed and a final manual was produced. The training program will enable volunteers to perpetuate the monitoring systems that have been established over the years with the Alliance for the Chesapeake Bay and the Virginia Department of Environmental Quality. The parameters that are included in the training program include: dissolved oxygen, pH, water clarity, salinity and bacteria using the Coliscan system. The manual does include the protocols for testing using a Hydrolab as well as the traditional kits that were typically used.

To become a certified trainer the candidate must complete the training with Alliance for the Chesapeake Bay then pass a written exam that demonstrates clear understanding of the requirements and responsibilities of becoming a certified trainer. . The test includes questions on the documentation procedures, calibration procedures and logs, how to conduct an initial training, how to conduct a recertification session and the equipment required for testing basic parameters. Each year the Certified Trainer must verify his

master thermometer with the Alliance for the Chesapeake Bay so that the Trainer can accurately check the other volunteers.

2. Trainings
The following training programs were conducted:
Training programs 2
Number of attendees 22

Recertification trainings 1
Number of attendees 10

Mock Train the Trainer Training 1

3. Support and management of new and existing citizen monitors/data
The Tidewater RC&D Project Manager served as the volunteer coordinator to recruit and obtain training for 18 volunteer monitors. In cooperation with Alliance for the Chesapeake Bay and the Virginia Department of Environmental Quality sites were chosen were data was needed and citizens were able to access the water. Volunteers were recruited and trained in sample collection, testing and entering data into the databases. During this grant a total of 253 water samples were taken from 14 sites and entered into the databases. The parameters that were measured included dissolved oxygen, pH, water clarity, and salinity. Some bacteria sampling was performed but not at all sites or on all samplings. This data is entered into the permanent records of the Department of Environmental Quality and used in their assessments of the quality of Virginia Rivers.

4. Development of Quality Assurance Project Plan (QAPP) for Hydrolab meter and revision of the Alliance for the Chesapeake Bay's Citizen Monitoring Program AQPP.

The Quality Assurance Project Plan was developed for the use of the Hydrolab for basic parameters and the existing QAPP for the Alliance for the Chesapeake Bay Program was modified. Copies of these plans are included within the Train the Trainer notebook that accompanies this report.

The Hydrolab did prove difficult for citizens to use on a continuing basis because of the need for maintenance calibration and generally the difficulty in transferring the lab from one volunteer to the next.

5. Co-sponsor a Forestry Short Course on Conservation Strategies
Tidewater RC&D co-sponsored a full day seminar for professional natural resource planners, government officials and volunteer organizations to learn about the variety of tools that are available in Virginia to sustain a working landscape that supports low impact land uses such as forestry and agriculture. The course outline and supporting manual were developed by the Virginia Cooperative Extension state in the Department of Natural Resources – Forestry**.** Subjects included the importance of preserving forest and agriculture lands, Comprehensive Plans as a tool for preserving land, the impact of

zoning and subdivision plans on the quantity of working landscapes, conservation easements, purchase development rights, transfer development rights, land use taxation and the right to farm laws. Partners in hosting first offering of the class in Virginia were the local land trusts, Cooperative Extension and the Virginia Department of Forestry. Originally the class was designed for 35 people, however, do to local demand there were 58 people in full attendance and several other luncheon discussion leaders joined for the class.
The mixture of attendance included staff from the Virginia Department of Forestry, Soil and Water Conservation Districts, Natural Resources Conservation Service, county planners, and county tax commissioners and members of the Boards of Supervisors, and local community action groups such as land trusts. The evaluations indicated a high level of satisfaction with the speakers and the reference manual. This class directly impacts decision makers and staff recommendations to decision makers by providing them with up to date information on tools available in Virginia to conserve the natural resources while responding to the growing populations need for development.

6. Website Development

A website was developed for Tidewater RC&D which allows for communication to the water quality monitors and allows for more people to realize that volunteer monitoring continues to be an important source of data for the Virginia Department of Environmental Quality. For details please go to www. Tidewater rcd.org.